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ABSTRACT

Changing the school environment to enhance student motivation and achievement is described in this paper, which focuses on broad structural change within the school. Current motivation theory is applied at the school level for lasting school reform. A collaborative project among university researchers, school leaders, and school staff in one elementary and one middle school in a school district with a large at-risk student population is described. The objective was to emphasize task over performance in each school, which involved a qualitative change in the nature of the learning environment. Although school staffs' impatience for immediate action and results created tension between researchers and site staff, project outcomes suggest the feasibility of using a model based on a goal theory framework for organizational change. Crucial factors to increase student motivation include organizational change at the school level and leadership development. Two tables are included. (27 references) (LMI)

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RESTRUCTURING THE SCHOOL ENVIRONMENT TO ENHANCE STUDENT MOTIVATION AND LEARNING*

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THE UNIVERSITY OF MICHIGAN
THE COMBINED PROGRAM IN EDUCATION AND PSYCHOLOGY

Paper presented at the
American Educational Research Association Annual Meeting
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INTRODUCTION AND BACKGROUND

It is no secret that there is a continuing concern about student achievement. The worry about industrial and societal productivity (e.g., Dertouzos, Lester, & Solow, 1989) has been visited in a special way on the nation's schools. Not surprisingly, a concern with student achievement has given rise to concern with student **motivation** to achieve. Today, it is most certainly *not* just members of the AERA motivation SIG that are deeply interested in the motivation of children to achieve, to learn, to do well in school. It is a specific and explicit concern of those who govern and set policy. In this regard, consider in particular the comments of Assistant Secretary Christopher Cross of the U.S. Department of Education. In a recent article in the Educational Researcher, Cross identifies motivation as one of the four priorities for educational researchers and provides the following rationale:

> We know that schools improve one at a time, each according to its own unique circumstances and conditions. Unfortunately, neither Lincoln High School nor King Elementary nor any other school in America will improve unless its teachers want to improve and its students want to learn. That is why this question of teacher, student, and parent motivation is one of the single most important questions we face. Because motivation is a multifaceted issue touching many dimensions of education, we want *each* center to address it. We also want more scholars -- both inside and outside the federal education research system --to explore it (Cross, 1990, p. 22)

Motivation is in the limelight. It is recognized as a critical need for a society that is clearly worried about its future. So, what can be done? What do we in the motivation business suggest, propose, or advise?

Approaches to Intervention

There are, of course, a variety of possible approaches to enhancing the motivation of children. This symposium reflects to some degree the range of possibilities that are available. More generally, however, when the issue of student motivation arises, there is a tendency to focus on and blame the home, the teacher --- or in some woeful combination --- both. Most of what we as motivational researchers have said and continue to say is directed toward the classroom teacher and more often than not it goes little further than presumably helpful hints about reward and punishment. Increasingly, however, questions are being raised about redefining the nature of instruction and redesigning the classroom environment. And, there is even a hint in the literature here and there that we cannot limit ourselves to addressing teachers and the design of classroom instruction. We ought to be considering the school as a whole. We must speak to those charged with setting school-wide policy and procedures since it is increasingly evident that such policies and procedures do affect student motivation and learning.

The Need for a School-Wide Approach

Certainly, we do not wish to down play the importance of considering how teaching, the design of instructional materials, classroom management, or approaches to child care may affect the motivation of children. However, we would argue that there is an important place in addition for considering the school environment as a whole and for reviewing school-wide stresses that may serve to enhance or diminish student motivation. Thus, efforts at the classroom level can be undermined by school-wide policies and procedures. Classroom teachers can be doing an excellent job of making learning intrinsically meaningful only to have the principal undermine those efforts by establishing a school-wide extrinsic reward program which gives a totally different message about the purpose and meaning of learning. A teacher's effort to evaluate students on the basis of progress and improvement can be subverted by a school-wide stress on the results of standardized achievement tests.

In short, the classroom is not an island. It is part of a broader social system and it is difficult to develop and sustain changes in the classroom without dealing with the wider school environment. Moreover, teachers alone cannot carry the burden of significant educational improvement; one must also effectively engage school leadership if the deepest structure of teaching and learning is to change. Yet, seldom if ever do educational psychologists speak directly and at length to those who focus on the school as a whole, to those who are critical in the process of rethinking and restructuring not just a given classroom or select program, but the larger context of student learning. In a word, we seldom speak to school *leaders*. Rarely do we see an article by a major researcher that speaks to policy makers, principals, and school leadership teams about changing the school environment to enhance student motivation and achievement. This is not to suggest that a whole school focus should be the only focus. It is only to suggest that there is a place for such a focus. Further, we believe that it is a timely focus. The current wave of reform seems to revolve in a special way around restructuring schools (Murphy, 1991). The focus is on broad structural change in the way schooling is undertaken.

We would argue that reconstituting current motivation theory/research for ready application to the school level is desirable, maybe even necessary, if enduring school reform is to occur. More than merely arguing the point, we have dared ourselves to undertake a theory-based collaborative program in selected schools aimed at changing the school psychological environment.

A FRAMEWORK FOR RESTRUCTURING THE LEARNING ENVIRONMENT OF SCHOOLS[1]

In approaching our task there are at least three questions that must be addressed. First, is there really such a thing as a school learning environment? More specifically, do schools tend to stress different purposes for learning? Second, are these differences in school goals related to the motivation and personal engagement of students? And third, can emphases in the school environment be shifted in a way that the motivation and investment of students is significantly affected?

The School as a Learning Environment

There is a growing body of evidence that schools do differ in the type of character or environment for learning that they present. Early work on educational environments by Stern (1970), among

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[1]For a fuller description and discussion see Maehr and Midgley (in press), an article on which this presentation is based.

others, certainly provided initial justification for this belief. More recently, the work on "effective schools" (e.g., Good & Weinstein, 1986) and the interest in "school culture" (e.g., Deal & Peterson, 1990) has provided some empirical justification in this regard. This work, however, has not provided a theoretical and operational framework which relates school environment directly to student motivation. Our first task was to tackle that problem.

In a series of studies, we and our colleagues (Braskamp & Maehr, 1985; Maehr & Braskamp, 1986; Krug, 1989) attempted to operationalize the concept of "organizational culture" and later "school culture" in a form that allowed for ready assessment using standard questionnaire techniques and psychometric analyses. This work built heavily on "goal theory" (e.g., Dweck, 1985; Ames, 1990; Maehr & Pintrich, In Press; Pervin, 1990) and is, generally speaking, conceptually parallel to the work of Carole Ames (this symposium). School culture was defined as perceived goal stresses or perceived emphasis on "personal incentives" stressed in the school environment. The first efforts considered an array of possible goals, including especially two which were similar to the Mastery and Performance goals defined at the classroom level by Ames. We quickly recognized that these two goals were not sufficient to describe the multiplicity of stresses in the school culture. However, they did appear to encompass significant aspects of the school as a learning environment.

What is important about these initial efforts is that evidence was found that perceptions of organizations as psychological entities appeared to have a degree of conceptual coherence. Organizations in the aggregate likely vary (Krug, 1989; Maehr, 1987; Maehr & Braskamp, 1986) in these perceptions, suggesting that schools indeed may be characterized by different goal stresses. Not of incidental importance was the finding that goal dimensions, not unlike those considered at the individual and classroom level, appeared to be recognized at the organizational level. Finally, the initial approaches to measurement (Krug, 1989) held out the promise of quantitative analyses of what has been increasingly termed the "psychological environment" of the school (Maehr, in press).

In summary, it seems that just as one can define the environment of the classroom in goal theory terms (cf. Ames and Archer, 1988), so can the school be defined. Similar goal dimensions seem to exist for these two different "psychological environments." And just possibly, the psychological environment of the school is different than the sum of its classroom counterparts.

School Learning Environment and Student Motivation

The identification of dimensions of the school as a learning environment was a first step. A necessary and also critical next step was the determination of whether these dimensions relate to anything that might be viewed as student motivation and achievement. In this regard, we (Fyans and Maehr, 1989; Maehr, in press) next conducted a comprehensive analysis of the relationship between students' perceptions of schools, and their motivation and achievement in approximately 880 schools in Illinois. The perceptions of schools were obtained using an early experimental version of a measure designed to assess perceived goal stresses. We assessed motivation through a questionnaire which incorporates an array of items commonly used in the assessment of various dimensions of motivation, including for example, attributions (Weiner, 1980; 1986), "continuing motivation," (Maehr, 1976), and evaluation anxiety (Hill, 1980; 1984). Achievement across four content areas (Math, English, Natural Science, and Social Studies) was assessed through the results of standardized achievement tests.

A series of path analyses were conducted to determine the conceptual viability of a causal model which proposed that goal stresses in the school were related to motivation and subsequently to achievement. In brief, support for this model was obtained and confidence was increased that the "psychological environment " of the school is not just an interesting curiosity, but perhaps a variable that is importantly associated with student motivation and achievement. Thus the

Table 1: Toward the Development of a School-Wide Mastery Orientation: General Framework to be Employed in Development of Tactics

TARGET Area	Focus	Goals	Strategies
Task	Intrinsic value of learning	Reduce the reliance on extrinsic incentives Design programs that challenge all students Stress goals and purposes in learning Stress the fun of learning	Encourage programs that take advantage of students' backgrounds and experience Avoid payment (monetary or other) for attendance, grades, or achievement Foster programs which stress goal setting and self-regulation/management Foster programs which make use of school learning in a variety of non-school settings (internships, field experiences, co-curricular activities)
Authority	Student participation in learning/school decisions	Provide opportunities to develop responsibility, independence, and leadership skills Develop skills in self-regulation	Give optimal choice in instructional settings Foster participation in co-curricular, and extra-curricular settings Foster opportunities to learn metacognitive strategies for self-regulation

Table 1 (continued)

TARGET Area	Focus	Goals	Strategies
Recognition	The nature and use of recognition and reward in the school setting	Provide opportunities for all students to be recognized	Foster "personal best" awards
			Foster policy in which all students and their achievements can be recognized
		Recognize progress in goal attainment	
		Recognize efforts in a broad array of learning activities	Recognize and publicize a wide range of school-related activities of students
Grouping	Student interaction, social skills, and values	Build an environment of acceptance and appreciation of all students	Provide opportunities for group learning, problem solving, and decision-making
		Broaden range of social interaction, particularly of at-risk students	Allow time and opportunity for peer interaction to occur
		Enhance social skill development	Foster the development of subgroups (teams, schools within schools, etc.) within which significant interaction can occur
		Encourage humane values	
			Encourage multiple group membership to increase range of peer interaction

Table 1 (continued)

TARGET Area	Focus	Goals	Strategies
Evaluation	The nature and use of evaluation and assessment procedures	Increase students' sense of competence and self-efficacy Increase students' awareness of progress in developing skills and understanding Increase students' appreciation of their unique set of talents Increase students' acceptance of failure as a natural part of learning and life	Reduce emphasis on social comparisons of achievement by minimizing public reference to normative evaluation standards (e.g., grades, test scores) Establish policies and procedures which give students opportunities to improve their performance (e.g., study skills, classes) Create opportunities for students to assess progress toward goals they have set
Time	The management of time to carry out plans and reach goals	Improve rate of work completion Improve skills in planning and organization Improve self-management ability Allow the learning task and student needs to dictate scheduling	Provide experience in personal goal setting and in monitoring progress in carrying out plans for goal achievement Foster opportunities to develop time management skills Allow students to progress at their own rate whenever possible Encourage flexibility in the scheduling of learning experiences

possibility emerged that the psychological environment of the school might be a viable target in effecting changes in student motivation.

Changing the School Environment

For researchers as well as for practitioners, it is important to determine whether one can change the school environment in such a way that motivation and achievement are positively influenced. Thus, an attempt to intervene and change the school "psychological environment" is a desirable next step in the process. That step is indeed a big step. It involves, first of all, identifying facets of the school environment that are amenable to change. Just as Ames identified classroom management strategies that influence the "psychological environment" of the classroom, so is it desirable to identify procedures, policies, and practices that have comparable school wide effects.

Preliminary work on school culture and climate (Baden & Maehr, 1986; Maehr, in press) as well as the large literature on school effectiveness (e.g., Good and Weinstein, 1986) strongly suggested that school policies, practices, and procedures define what the school is about, what students are to do, and how the activities of students are to be organized and managed. Through inaugurating, promoting, or subverting policies, school leaders are likely to have effects that are roughly comparable to those seen at the classroom level. Decisions, practices, and actions which have school-wide effects are likely to symbolize the purpose and meaning of time spent in a particular school.

Table 1 presents an outline of how school level policy possibly relates to the determination of a school-wide psychological environment. Note that this outline is also structured within the TARGET paradigm used by Ames at the classroom level, primarily for reasons of convenience. In fact, the TARGET defined options may prove to be too limiting and can at best only represent a starting point for policy considerations. Not all school policies or management strategies fit neatly into one of these categories. The easily remembered acronym, at best, serves to suggest a variety of areas in which both classroom and school-wide policy and procedures are operative. Reflected there also is a more focused concern with the school environment. Specifically, our concern centers on two goal stresses that have qualitatively different effects on student motivation and achievement.[2]

Table 1 here

TOWARD A PROGRAM OF SCHOOL-WIDE CHANGE

On a theoretical basis, school-wide policies and procedures are likely to convey the purpose and meaning of schooling. They probably not only define the nature and worth of learning but also the worth of the learners. Current theory (Maehr, 1984) suggests further that such meanings are associated with student personal investment in learning. The question is then, can those in leadership roles change the "psychological environment" of the school.

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[2]Recent motivation research converges on the importance of these goals in influencing the quality of student investment in learning (cf. Dweck, 1985). However, different labels are used in defining what are arguably essentially the same basic goal categories. Thus, what we refer to as Task is referred to elsewhere as Mastery (Ames & Archer, 1988), Learning (Dweck & Leggett, 1988) or Accomplishment (Maehr, In Press). What we term Performance is labeled Ego-oriented (Nicholls, 1989), or Power (Maehr, In Press).

We are currently collaborating with school leaders at both the elementary level and the middle school level in three year programs aimed at answering this question. These programs are in their initial stages. At the end of three years, the efficacy of the approach will be assessed and the results reported. We do think, however, there is merit in describing the process we envision, as well as sharing some of the anecdotes and early successes we have experienced. We will not, at this point, describe the research methodology to be used in evaluating our efforts except to say that it is characterized by both qualitative and quantitative approaches. In the process we have not only developed measures of the "psychological environment" of the school, but also created measures to assess changes in student personal investment in learning.

A Proposed Process

These projects establish a collaborative relationship between researchers, school leaders, and staff in elementary and middle schools in an effort to examine and revise a wide range of policies and practices in order to change the way school and school tasks are perceived. Specifically, the objective was to increase school-wide stress on Task rather than Performance goals and thereby define the purpose of schooling as worthy in its own right, as possible for all -- and not as a demonstration of ability and relative status. In sum, the intervention was directed to qualitative change in the meaning and purposes of school and in the nature of learning; a change in that phase of the psychological environment which seems likely to significantly influence student investment in the learning process (Ames, 1990; Covington, In Press; Maehr, In Press; Midgley & Maehr, 1991, Nicholls, 1989). To this end, we developed a three year plan. That plan is outlined in Table 2.[3]

Table 2 about here

The Process in Practice

It is one thing to propose, and another to put into practice what is proposed. In this conclusion we would like to describe the beginnings of our interactions with the leadership teams, particularly in the elementary school, and share some early successes.

A school district with a large "at risk" student population, within reasonable commuting distance from the University of Michigan, agreed to participate in this project. An elementary school and middle school within that district are serving as demonstration sites.

At both sites a "leadership team" was selected. The membership of this team was largely determined by the principal, though some of the teachers had clearly volunteered to be involved. This leadership team now meets regularly (usually once a week) with University staff as a collaborative coalition to plan action that might enhance the task-oriented nature of the school environment.

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[3]This plan, and the Table that follows, are taken, with minor revisions, from the proposal that was submitted to the Department of Education FIRST Program, which is funding the elementary school project. Funding for the middle school coalition is also from the Department of Education through a subcontract with the National Center for School Leadership, Champaign-Urbana. See also Maehr & Midgley (forthcoming) for an elaboration of the process.

Table 2: Steps in the Process of Change

1 - SELECTING THE LEADERSHIP TEAM

A - Describe the purpose of the program to the school staff
B - Solicit volunteers and nominees from the school staff
C - Select the members in consultation with the principal

2 - DEVELOPING LEADERSHIP TEAM AWARENESS

A - Discuss the type of school environment that will allow all children to experience success, to be challenged academically, to feel efficacious and engaged, and to be a part of the total school community.
B - Provide the framework of the demonstration in terms of task-focused goals and ability-focused goals
C - Develop awareness of policy and procedure antecedents of a task-based school environment
D - Analyze school policies/procedures in terms of compatibility with task-based goals

3 - DEVELOPING SCHOOL IMPROVEMENT PLANS

A - Identify specific school policies/procedures to be reinterpreted or revised
B - Specify alternative tactics/strategies to bring about reinterpretation or revision
C - Include staff as a whole in the planning
D - Include parents and community in the planning when appropriate

4 - IMPLEMENTING SCHOOL IMPROVEMENT STRATEGIES

A - Implement specific strategies to bring about change
B - Include parents and community in the implementation when appropriate
C - Monitor the success or failure of implementation efforts
D - Communicate the nature and rationale for change to relevant constituencies
E - Solicit support from relevant constituencies

5 - APPLYING PRINCIPLES AND STRATEGIES TO HOME AND COMMUNITY

A - Work with school staff to improve communication with families
B - Work with school staff to design strategies to encourage a task-based focus at home
C - Identify opportunities in the community for task-based experiences
D - Work with community groups to make task-based experiences available to students

6 - EVALUATING SCHOOL IMPROVEMENT STRATEGIES

A - Describe strategies and programmatic activities that occur over the course of program development and implementation
B - Engage project and school staff in regular dialogue concerning the relative success of the implementation of various strategies
C - Conduct analyses of all data gathered over the course of the demonstration in order to determine its efficacy

During the first meetings, the theory on which the project is based was discussed and explained. The point was made that while the theory is proposed as a general framework for the effort, the school-university coalition would have to specify strategies and action to be taken. At the outset, the school leadership teams in both cases seemed convinced at the outset that the university group had a hidden agenda and that at some point we would tell them what they really needed to change - after all, why else were we there? We emphasized (and continue to emphasize) that the school staff must decide what should be changed and the precise form the change should take. We do make a point of interpreting to the school leadership team how any change may affect student motivation, as suggested by the theory. Using examples and anecdotes to illustrate the theory is particularly helpful. For example, to distinguish between a task-focused child and a ability-focused child, we gave the example of a child coming home from school and telling her mother she had a great day because she got an A, did better than her best friend, or because she won the spelling bee. We contrasted that with a child saying she had a great day because she finally mastered long division, read a wonderful story about India, or tried to solve a really difficult problem. When we discussed how one orientation or the other might influence a person's behavior, the school leaders identified with the example of choosing not to take a course in college because it might lower one's grade point average. They had all experienced this and gave examples. One teacher said - "I've always wanted to learn chemistry - but I didn't take it. Wouldn't it be wonderful if we could just think about what we want to learn and not worry about how well we'll do." That said it better than we could. At the end of one meeting a teacher said - "I'm beginning to get the idea - You are helping us to think about things differently so that the children will think about them differently." These were very positive moments of insight - but not everything has been positive. At the meeting following this one, teachers said they were too tired to talk about theory and wanted to get on with it - to do something more concrete than just talk about theory. This need to move quickly is a recurring theme.

In response, at the next meeting we suggested they might want to do some brainstorming - listing on the board a wide range of policies, procedures, and practices they might want to examine. We also suggested that to further illustrate the theory, they might want to select one of the areas and examine it in relation to the theory. Both groups readily engaged in this exercise and came up with a number of ideas and a list of change possibilities. The elementary school team decided to use their "educational fair" as an illustrative example. This fair, similar to a science fair, is held annually, and is a major school event. Parents are strongly encouraged to help their children develop a project but not to do the work for them. Projects are judged and those deemed best are placed in the hall; the remaining projects are displayed in the classroom. Teachers began by discussing the strengths and weaknesses of the fair. Teachers talked about the role of parents and noted that some parents did the work for their child, because they wanted the child to win, while other parents did not become involved in any way. Thus, some children were unable to participate. Teachers spoke about the disappointment many children experienced when they didn't win, and the tendency of parents to view only those projects that were judged to be the best. Even though a consideration of the fair was suggested only as a way to examine the theory, teachers began to propose changes. They decided to eliminate the judging and to give all participants a ribbon. One teacher offered to contact the high school to see if students could be recruited to help those students whose parents were unable to participate. Other ideas were suggested for making parents feel more comfortable in getting involved and providing support for students who needed it. They decided to put the fourth and fifth grade students' projects in the hallways, and the other projects in the classrooms. At that point we pointed out that review of the education fair was initiated for illustrative purposes: to articulate how the theory might work. The leadership team reacted by proposing action. They wanted to make these changes now and confronted the principal pointedly - "Well - can we do this or not?" At the next meeting the university team suggested that it might be good to discuss the changes that had been proposed at the last meeting: Who would be responsible for various tasks that needed to be done? How did the changes relate to the theory? What might result from this change in practice? We also asked the leadership team to think about how this decision might be viewed by the rest of the staff and by the parents. They began to

express some impatience, saying that the rest of the staff and the parents would be no problem and they knew how to handle them in any event. This worried us - and we have raised this question since, but the answer remains the same.

Pleased that this major change, so in keeping with the orientation we were trying to emphasize, had been undertaken so quickly, we were shocked at the end of the meeting when one teacher said she was feeling extremely frustrated. "This is taking so long - how are we going to make all those changes we listed on the board if we move this slowly. We talked about the education fair last week - why are we talking about it again this week?" We soon learned that this need to do something was persistent in both groups. Indeed, it is at times a source of conflict between the school and university contingents. Not surprisingly, the University group stresses "rethinking," "examining the implications," "defining the purposes;" school staff members worry about things that should be done now. As one of the teachers put it , she had a lot of "at risk" children in her classroom who needed immediate help. It has been our experience that teachers are frequently wary of University "experts" and how much they know and can accomplish and so we were, in some ways, surprised at this reaction, especially as they seemed to indicate at times that perhaps we had some answers, and if we could just give them the answers, we could move ahead quickly and save these children from failure. We talked about these perceptions and about the process of school change but it is obvious that the source of conflict remains. While we tend to focus on the theory, the school staff's understanding and acceptance of it, the school staff seems to be focusing on action needed to be taken soon.

At one of the meetings the principal asked us if we could find tutors for some of the children and if, indeed, we ourselves would serve as tutors. This precipitated a discussion, first of all, on the focus of change attempts. A member of the University group mentioned that the goal of the process was not to change children so that they fit schools, but rather to change schools so that all children fit. That was accepted but there also ensued a discussion of what the University group's role was or should be---besides gathering evaluative data. An attempt was made to describe the larger purpose of creating a program that was of general use; the University group wanted to codify a workable process and collaboratively identify strategies that might work for schools in changing environments. That role definition was more or less accepted, but the school leadership team continues to press the University team to get involved in a hands on way with the day-to-day activities of the school, at least for the purpose of better understanding them and their students. Suffice it to say that there is a basis for tension between a University group's goal of creating a generalizable model for school change and a school staff's needs to deal with the problems of a specific school---and right now.

Clearly, there are problems to be faced and lessons to be learned in confronting the problems of a school in the collaborative way we envision. However, from time to time, even at this early stage, we see the ultimate potential of our strategy. And already there is a piece of evidence here and there that something new and different -- a restructuring of the psychological environment of the school may be possible.

CONCLUSIONS

In conclusion, we have described a plan for collaborating with school leaders to bring about changes in policies and practices, using a goal theory framework. We have shared some of our early experiences and successes working as a "coalition." But we wish to remind you, and ourselves, of the rationale and perspective that prompted us to leave our ivory tower and engage in action we believe will be helpful.

There is a present concern with student motivation for learning. In some quarters, one only hears a stress on the need to **increase** motivation---and one indeed hears much about that. Among

motivational researchers, the focus of the moment revolves especially around the nature and quality of motivation. In both cases, there is a persistent demand that something be done There is indeed much to be done. Our suggestion is that motivationists have barely divorced themselves from thinking of motivation and motivation change as an individual thing. When they have dared to talk about changing contexts or environments to enhance motivation they have spoken primarily to teachers. Only rarely have they considered restructuring the whole organizational framework in which learning occurs and spoken directly and specifically to school leaders. Now, we submit, is the precious moment in which this task must begin. There are currently widespread and diverse efforts to "restructure" schools. Implicit in current motivation theory is a workable framework for guiding such restructuring. The issues discussed in school reform forums inevitably embrace motivational issues, but they characteristically use models and modes that motivation theory has cast aside as unwieldy, unworkable, or downright wrong. Now is the time to think big and apply what we know to organizational change. Such is the nature of the effort in which we are engaged. We would propose that it might serve to make a difference in schools and expand our knowledge of human development as well.

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